

[a central processor connected to an input unit and to an output unit, to position determination means and to a storage element for map data, and means for associating an ascertained vehicle position with a data record stored in the storage element of the map data, wherein the storage element (5) stores information about traffic restrictions which is part of a data record of the map data and traffic restrictions relevant to the ascertained vehicle position are displayed on the display unit (3, 9). A]

a mobile telephone operably connected to the navigation system, whereby the information about traffic restrictions is retrievable from a stationary transmission station in a mobile radio network and is updateable.

REMARKS

Generally, the present invention concerns a navigation system for a motor vehicle in which travel information is stored in the system's storage element. More particularly, the present system stores information about traffic restrictions, such as the height, width or length restrictions and/or traffic restrictions for particular types of vehicles. At least one, or as many as may be applicable, restrictions are displayed in the vehicle in order that the driver is able at any time to find out about the currently applicable traffic restrictions by looking at the visual monitor of the navigation system.

As stated in lines 10-15, page 3 of the specification:

"In the context of the invention, the complete blocking of roads to motor vehicle traffic or one-way street regulations are not regarded as traffic restrictions, since these do not constitute an actual restriction, rather these roads are not available to motor vehicle traffic at all or in particular directions of travel."

(underscoring added)

Thus, the present invention contemplates only restrictions that are applicable to vehicles traveling on roadway that is open to travel by the vehicle. The restrictions set forth above, speed

etc., are those that are specifically identified as significant restrictions falling within the present invention. Further, this invention intends that the restriction display on the visual monitor be displayed constantly during the period of restriction applicability. For example, referring to the text beginning at line 13, page 4 of the specification, it is stated:

“The navigation system according to the invention, in which the currently permissible maximum speed is constantly displayed on the output unit, can be used by the driver at any instant to find out about the currently applicable speed restriction. This results in a significant increase in traffic safety.”

Another aspect of this invention resides in the fact that the type of restrictions with which it is concerned are capable of being easily displayed in either numeric or in alpha-numeric format. This is a feature which reduces potential driver confusion, thus resulting in improving driving safety.

Claim 1 stands rejected under 35 U.S.C. 103(a) as unpatentable over admitted prior art in view of Desai et al. (U.S. 5,862,509 A). As the Examiner states in the office communication, the Desai reference does disclose a navigation system and it does make reference to certain traffic limitations which he has characterized as “restrictions”. However, and more specifically, the Desai reference concerns itself solely with what the specification refers to as timed turned restrictions (“TTRs”) and timed lane restrictions (“TLRs”). These are disclosed as restrictions on vehicle turns and/or use of traffic lanes that vary with the time of day, with the day of the week and/or with the season. Although the TTRs and TLRs are characterized in Desai as being restrictions, this sort of traffic characteristic is specifically not included in Applicant’s definition of what is intended to constitute a traffic restriction. In Desai, the TTRs and TLRs result in a complete blockage to motor vehicle traffic and therefore are not regarded in the present invention as being within the scope of what Applicant intends to constitute “traffic restrictions”. Since

Desai does not deal with the traffic restrictions of the type to which Applicant has limited his invention, it cannot effect any display of a traffic limitation that meets Applicant's requirements.

Also, even though Desai makes reference to the display of information relating to TTRs and TLRs, it must be noted that the display is made in the form of icons rather than of numeric or alphanumeric formats as is done in the present invention. By referring to the language beginning at line 47 in column 8 of the Desai specification, it can be seen that both the TTR and the TLR, when identified on a screen, are displayed in the form of an icon. Specifically it is stated that TTRs may be highlighted on display as an arrow and a first color or a fill texture, etc., and that the TLR can be exhibited in a similar manner. The use of icons such as graphically altered arrows is not the equivalent of the numeric or alphanumeric information provided to the automotive operator in the present invention.

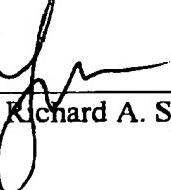
Claim 1 has now been amended to specifically recite that speed and other traffic restrictions that are applicable to the present invention are those which apply to operation of the vehicle only on roads that are being currently used by the vehicle. That is, excluded are so-called traffic restrictions in which the road is not available for use by the vehicle, such as one-way restrictions, restricted turns, etc. The present invention differs from that shown in the Desai reference because Desai relates only to the type of vehicle limitations which are of no concern to the present invention. Further, the displays that are used in Desai are icons, rather than numerical or alphanumeric information that is on display constantly in Applicant's navigation system.

Claim 10, which is the only other independent claim, has been amended to include all of the limitations of claim 1 and all of the other dependent claims are therefore dependent from a claim in which all of the limitations of claim 1 are also present.

In view of the amendments made to the claims and for the aforeslated reasons,
reconsideration of the rejection and allowance of the pending claims are earnestly solicited.

Respectfully submitted,

By:


Richard A. Speer, Reg. No. 17,930

Date: September 24, 2002

MAIER, BROWN, ROWE & MAW
P.O. Box 2828
Chicago, IL 60690-2828

CLEAN VERSION OF AMENDED CLAIMS

Claim 1 (Twice Rewritten)

A navigation system for a motor vehicle comprising:

- (a) a central processor;
- (b) an input and an output unit connected to the central processor;
- (c) an information storage element connected to the central processor, which storage element contains:
 - (i) a data record of map data;
 - (ii) traffic restriction information applicable to the vehicle only on roadway which is open to travel by the vehicle; and
- (d) a display unit connected to the central processor and displaying the traffic restriction information in numeric or in alpha-numeric characters constantly during the period of restriction applicability.

Claim 10 (Twice Rewritten)

A navigation system for a motor vehicle comprising:

- (a) a central processor;
- (b) an input and an output unit connected to the central processor;
- (c) an information storage element connected to the central processor, which storage element contains:
 - (i) a data record of map data;
 - (ii) traffic restriction information applicable to the vehicle only on roadway which is open to travel by the vehicle; and

(d) a display unit connected to the central processor and displaying the traffic restriction information in numeric or in alpha-numeric characters constantly during the period of restriction applicability.

a mobile telephone operably connected to the navigation system, whereby the information about traffic restrictions is retrievable from a stationary transmission station in a mobile radio network and is updateable.